

## REMARKS

Claims 1, 3-15, 17-19 are now pending in the application. Claims 2 and 16 have been previously cancelled. Claims 1, 11, 17 and 19 have been amended herein. Support for the amendments can be found throughout the application, drawings and claims as originally filed, and as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## CLAIM AMENDMENTS

Applicants have amended herein Claims 1, 11, 17 and 19. Support for the amendments can be found throughout the application, drawings and claims as originally filed, and as such, no new matter has been presented. With regard to the amendments to Claim 1, Applicants note that Claim 1 has not been rejected under 35 U.S.C. § 102 or 35 U.S.C. § 103, but in the interest of expediting prosecution, Applicants have amended Claim 1 in line with the amendments made to independent Claims 11 and 19. As Applicants respectfully submit the amendments to Claims 11 and 19 define over the art of record, Applicants also respectfully submit that Claim 1 should be in condition for allowance over the cited art. Favorable consideration of the amendments made herein is respectfully requested.

## REJECTION UNDER 35 U.S.C. § 112

Claims 1, 3-15 and 17-19 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the

subject matter which Applicants regard as the invention. Applicants have amended the claims to overcome this rejection. Therefore, reconsideration and withdrawal of this rejection are respectfully requested.

**REJECTION UNDER 35 U.S.C. § 103**

Claims 11-15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schreiber et al. (U.S. Pat. No. 3,382,137; hereinafter "Schreiber") in view of Mertens et al. (U.S. Pat. No. 4,435,043; hereinafter "Mertens"). This rejection is respectfully traversed.

At the outset, Applicants note that Schreiber appears to disclose merely forming a laminate structure composed of a first layer of a thin glass sheet 10, a second layer of resin 11 and a third layer of a second glass sheet 10. The laminate is formed by placing two rubber gaskets 22 between the glass sheets 20, which are held together by clamps 23 as the resin flows into an area defined between the sheets. The resin 11 is heated to cure, and once the resin 11 cures it applies compressive force to the rear surface of the first glass sheet and the front surface of the second glass sheet. The rear surface of the second glass sheet is in tension. Schreiber teaches it is an object of his invention to provide a laminate glass structure that includes thin glass sheets joined together by a resin core. With regard to Mertens, Mertens appears to disclose a composite mirror panel that has a waterproof glass backing sheet 5 coupled to the mirror by an adhesive, and a corrugated stainless steel backing sheet 8 coupled to the backing sheet 5 by an adhesive. A flange 13 of a support joist 14 is attached to the backing sheet 8. In

contrast, to both Schreiber and Mertens, independent Claim 11 has been amended to recite:

...applying a **resin** to the rear surface of the mirror to form a rigid interlayer;  
securing a reinforcing structure on the rigid interlayer, the reinforcing structure formed by applying a resin in a liquid state to a reinforcing member...  
(emphasis added).

Independent Claim 19 has been amended to recite:

... applying a **resin** in a liquid state to a surface of the glass member opposite the light reflecting surface to form a rigid interlayer;  
applying a resin in a liquid state to a reinforcing member to form a reinforcing structure;  
securing the reinforcing structure to the rigid interlayer;  
coupling at least one support structure to the reinforcing structure;  
curing the resin such that the rigid interlayer, the reinforcing member and the support structure cooperate to support the glass member and facilitate mounting of the mirror assembly, and  
said resin shrinking as it cures and applying a compressive force to the surface of the glass member opposite the light reflecting surface, the compressive force having a magnitude such that the entire cross-sectional thickness of the glass member is maintained in a state of compression (emphasis added).

In view of the above discussion, Applicants respectfully submit that Schreiber or Mertens, either alone or in combination, do not teach each and every element of independent Claims 11 and 19. In this regard, Schreiber does not teach, suggest or disclose applying a resin to a rear surface of a mirror to form a rigid interlayer and securing a reinforcing structure on the rigid interlayer with the reinforcing structure formed by applying a resin in a liquid state to a reinforcing member to the rigid interlayer. Rather, Schreiber merely teaches the forming of a laminate that includes a

glass sheet joined to another glass sheet by **a central resin core**. Further, Applicants note that there is no apparent reason to modify Schreiber to include such a limitation as Schreiber expressly teaches that it is an object of his invention to glass sheets together with a resin core.

With regard to Mertens, Applicants note that Mertens does not remedy the shortcomings of Schreiber as Mertens also does not teach, suggest or disclose applying a **resin** to a rear surface of a mirror to form a rigid interlayer and **forming a reinforcing structure on the rigid interlayer that is formed by applying a resin in a liquid state to a reinforcing member**. Rather, at best, Mertens discloses the mounting of a stainless steel backing sheet to a glass waterproof backing sheet with an adhesive, with the glass waterproof backing sheet being mounted on the rear surface of the glass member with an adhesive.

Accordingly, as neither Schreiber nor Martens, singly or in combination, teach, suggest or disclose each and every element of Claims 11 and 19, for at least the reasons discussed above, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claims 11 and 19 under 35 U.S.C. § 103(a). In addition, as Claims 12-15, 17 and 18 depend directly or indirectly from independent Claim 11, Applicants submit these claims are patentable and in condition for allowance for the reasons discussed above with regard to Claim 11. Thus, Applicants respectfully request the Office reconsider and withdraw the rejections of Claims 12-15, 17 and 18 under 35 U.S.C. § 103(a).

Claims 11-14 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimodaira et al. (U.S. Pat. No. 4,807,969; hereinafter "Shimodaira") in view of the collective teachings of Wildenrotter (U.S. Pat. No. 4,239,344; hereinafter "Wildenrotter"), Howden (U.S. Pat. No. 4,484,798; hereinafter "Howden") and Kirsch (U.S. Pat. No. 4,436,373; hereinafter "Kirsch"). This rejection is respectfully traversed.

With regard to Shimodaira, Applicants note Shimodaira appears to disclose a reflector formed by placing a thin glass plate 7 and a prepreg 3 into a forming mold 1 and applying heat and pressure to bond the glass plate 7 to the FRP 4. The curing of the resin in the prepreg 3 transfers the shape of the forming mold 1 to the FRP 4 (see at least Column 1, lines 25-28). Then, a reflecting film 2 is deposited onto the surface of the glass plate. With regard to Wildenrotter, Wildenrotter teaches a mirror that includes three mirrors that are bent and coupled to a foil layer, which is then coupled to a support structure. Howden teaches using an adhesive to bond a metal layer to a substrate that is pivotally supported. Kirsch discloses a method of molding a glass sheet with a resin to form a fiberglass backing frame for the glass sheet. In contrast, independent Claim 11 recites:

...applying a resin to the rear surface of the mirror to form a rigid interlayer;  
securing a reinforcing structure on the rigid interlayer, the reinforcing structure formed by applying a resin in a liquid state to a reinforcing member...  
(emphasis added).

In view of the above discussion, Applicants respectfully submit that Shimodaira, Wildenrotter, Howden or Kirsch, either alone or in combination, do not teach each and every element of independent Claim 11. In this regard, Shimodaira does not teach, suggest or disclose **applying a resin to a rear surface of a mirror to form a rigid**

**interlayer** and securing a **reinforcing structure** on the rigid interlayer with the reinforcing structure formed **by applying a resin in a liquid state to a reinforcing member.** Rather, Shimodaira merely teaches the forming of a glass member by applying a prepreg to a rear surface of a glass plate such that the cured prepreg forms the outer surface of the glass member, and not forming a rigid interlayer and a reinforcing structure by curing a resin as claimed. Further, Applicants note that neither Wildenrotter, Howden nor Kirsch remedy the shortcomings of Shimodaira as these references also do not teach, suggest or disclose applying a **resin** to a rear surface of a mirror to form a rigid interlayer and **forming a reinforcing structure on the rigid interlayer** that is formed **by applying a resin in a liquid state to a reinforcing member.**

Accordingly, as neither Shimodaira, Wildenrotter, Howden nor Kirsch, singly or in combination, teach, suggest or disclose each and every element of Claim 11, for at least the reasons discussed above, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claim 11 under 35 U.S.C. § 103(a). In addition, as Claims 13, 14 and 17 depend directly or indirectly from independent Claim 11, Applicants submit these claims are patentable and in condition for allowance for the reasons discussed above with regard to Claim 11. Thus, Applicants respectfully request the Office reconsider and withdraw the rejections of Claims 13, 14 and 17 under 35 U.S.C. § 103(a).

Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimodaira et al. and the aforementioned collective teachings as applied to Claim

11 above, and further in view of Gee. Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schreiber et al. as and Mertens et al. applied to Claim 11 above, and further in view of Gee (U.S. Pat. No. 4,571,812; hereinafter "Gee"). Claims 15 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimodaira et al. and the aforementioned collective teachings as applied to Claim 11 above, and further in view of Stang (U.S. Pat. No. 4,124,277; hereinafter "Stang"). These rejections are respectfully traversed.

Applicants note that Claims 13, 14, 15 and 18 depend directly or indirectly from independent Claim 11, and thus, should be in condition for allowance for the reasons set forth for Claims 11 above. Accordingly, Applicants respectfully request the Office reconsider and withdraw the rejection of Claims 13, 14, 15 and 18 under 35 U.S.C. § 103(a).

#### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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